Application
for
United States Letters Patent

To all whom it may concern:

Be it known that

David J. Pinsky et al.

have invented certain new and useful improvements in

METHODS FOR TREATING AN ISCHEMIC DISORDER AND IMPROVING STROKE OUTCOME

of which the following is a full, clear and exact description

METHODS FOR TREATING AN ISCHEMIC DISORDER AND IMPROVING STROKE OUTCOME

This application is a continuation-in-part of PCT International Application No. PCT/US97/17229, filed September 25, 1997, which is a continuation-in-part of U.S. Serial No. 08/721,447, filed September 27, 1996 which applications are hereby incorporated by reference in their entireties.

The invention disclosed herein was made with Government support under National Institutes of Health, National Heart, Lung and Blood Institute award HL55397 of the Department of Health and Human Services. Accordingly, the U.S. Government has certain rights in this invention.

Throughout this application, various publications are referenced following certain Examples and within the Detailed Description of the Invention section. The disclosures of these publications in their entireties are hereby incorporated by reference into this application in order to more fully describe the state of the art as known to those skilled therein as of the date of the invention described and claimed herein.

Background of the Invention

As described in Colman et al., Editors, Hemostasis and Thrombosis, Third Edition, J.B. Lippincott Company, Philadelphia, 1994, pages 33-36, 62-63 and 94-105, human Factor IX is a 415 amino acid glycoprotein (Mr≈57,000, 17% carbohydrate). Factor IX is a proenzyme that has no catalytic activity. During the coagulation cascade, it is cleaved by Factor XIa to produce catalytically active Factor IXa. A wide variety of Factor IX gene mutations are found in patients with hemophilia B. Among these are mutations in the enzyme active site, including a Ser365 to Arg mutation and mutations near His221. (Colman et al., page 63) These mutations affect the ability of the active site to proteolytically cleave its Factor X substrate. Mutations of